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ABSTRACT

A job grading standard for Wood Worker WG-4604 is given for grading jobs under the Federal Wage System. The standard covers physical requirements, tools, job task, skills, and knowledge at three grade levels, and the limits placed on the requirements at each level. In general the wood worker makes and repairs such supply shipping, and storage items as small and medium boxes, crates, pallets, and other comparable items. (DS)

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JOB GRADING STANDARD FOR

WOOD WORKER
WG-4604

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WORK COVERED

This standard covers nonsupervisory work involved in making, installing, and repairing supply, shipping, materials handling, and storage items such as boxes, crates, pallets, gates, dividers, and storage bins, from wood and wood substitutes.

This work requires skill in using hand and powered tools and machines to measure, cut, install, and fasten wooden parts, and the knowledge and ability to follow, select, or adapt patterns, templates and procedures to make, disassemble, install, and repair wooden items.

WORK NOT COVERED

The following kinds of work are not covered by this standard:

—Constructing, altering, and repairing buildings, and related carpentry work. (See Carpenter, WG–4607.)

—Using woodworking machines to make furniture, finely finished cabinets, and similar items of intricate design, with contoured surfaces, decorative features, etc. (See Wood Craftsman, WG–4605.)

—Packing and repacking items in containers, and labeling containers. (See Packer, WG–7002.)

—Blocking, bracing, hoisting, and rigging with wires, ropes, and cables. (See Blocking and Bracing, WG–4602, or Rigger, WG–5210.)

—Applying preservative materials to items for storage and shipment. (See Preservation Worker, WG–7006.)

—Making cardboard boxes. (See Carton and Bag Making Operating Series, WG–5435.)

—Designing or writing plans and specifications for containers, packing, and packaging items and techniques. (See Packaging Series, GS–2032.)

TITLES

The title to be used for jobs covered by this standard is *Wood Worker*.

GRADE LEVELS

This standard does not describe all possible grade levels for this occupation. If jobs differ substantially from the skill, knowledge, and other work requirements described in the grade levels of this standard, they may be graded above or below these grades based on the application of sound job grading methods.

General: The Wood Worker WG–5 makes and repairs such supply, shipping, and storage items as small and medium boxes, crates, pallets, and other comparable items which have rectangular shapes, and construction features such as straight in-line and diagonal bracing, and construction plans which are complete in all aspects, including sizes of parts.

The WG–5 Wood Worker makes items by using hand tools and existing jigs, templates, models, or guides, to assemble and band, bolt, screw, or otherwise fasten parts. He may also use power tools and machines, such as nailing machines, banding or strapping devices, and power saws, to fasten items, cut boards to specified measurements, and trim edges.

Some WG–5 employees disassemble and repair wooden boxes, crates, foot lockers, pallets, and similar items. They tear apart items, select reusable parts, and make repairs, such as tightening and replacing nails, screws, broken boards, hardware, and other easy-to-replace parts.

The WG–5 Wood Worker follows specific instructions and well-established work procedures. His work procedures are spot checked in progress to insure that he is following instructions. His products are spot checked upon completion to insure that construction requirements are met.

Skill and Knowledge: The WG–5 Wood Worker applies skill in making and repairing boxes, crates, pallets, and comparable items. Such items have standard rectangular sizes and shapes and are covered by specifications and illustrations, or repetitive measurements and procedures. He uses a variety of assembly procedures and established work sequences to cut, nail, staple, screw, bolt, or otherwise fasten wood and wood-like boards, sheets, parts, and sections.

The WG–5 Wood Worker applies skill in the use of a variety of common hand tools, power tools, machines, and measuring and squaring devices to make, install, and repair items: for example:

—He uses hammers, screwdrivers, wrenches, nailing machines, banding devices, and staplers to connect and fasten wooden parts, metal hardware, *etc.*;

—He uses measuring devices such as common rules, tape rules, folding rules, and yardsticks, to measure length, width, height, and thickness in inches and fractions of inches;

—He uses try squares to align corners and simple joints, such as butt-on-edge, flat butt, and basic end lap joints;

—He uses hand saws, portable power saws, preset table or radial saws, or other saws to cut boards and sheets of wood to specified

measurements of length and width and to trim overhanging edges; and

—He uses portable drills or drill presses to drill and countersink holes, following templates.

The WG–5 Wood Worker identifies and selects a limited variety of frequently used wood and wood substitute materials, for example, soft pine, plywood, and hardboard, which are free from defects such as cracks, severe warp, large knotholes, etc. He also recognizes and selects the designated types and sizes of frequently used nails, screws, bolts, fastening devices, and other hardware.

Responsibility: The WG–5 Wood Worker follows specific instructions, established procedures, and appropriate work sequences which are usually explained or demonstrated for each new assignment. Typically, he is assigned work which requires repetitive, rapid assembly rather than close and precise measuring, cutting, joining, and fitting. He makes straight line measurements, such as those for length and width, and he estimates spacing for nailing and fastening in following standard patterns for assembly. He follows established safety practices, particularly when using power saws and tools to prevent injuries.

The work of the WG–5 Wood Worker is checked to insure that instructions and procedures are being followed and construction requirements are met.

Physical Effort: The WG–5 Wood Worker performs repetitive, tiring work for long periods. His work involves frequent standing, bending, stooping, and reaching. He uses frequent arm movement in hammering, fastening, sawing, etc., sometimes while in cramped or awkward positions. The WG–5 Wood Worker continuously lifts, carries, and uses tools, materials, and items weighing up to about 25 pounds, and sometimes lifts and moves heavier items.

Working Conditions: The WG–5 Wood Worker usually works in shop areas or other enclosed areas which may be drafty, damp, or overheated. He sometimes works outside in fair weather, and occasionally in bad weather. He is frequently exposed to loud noises, such as those from power saws, hammers, and nailing machines. He is frequently exposed to nose and lung irritations from sawdust, and to possible cuts from flying wooden particles, nails, fasteners, and from tools. To avoid injuries and irritations, he may wear safety eyeglasses, protective ear devices, or gloves.

General: The WG–7 Wood Worker constructs and repairs wooden containers of various sizes and types, odd-shaped pallets, wooden bracing to secure items in containers or to hold boxes in place during shipment, and other comparable supply, storage, and shipping items.

The WG–7 Wood Worker follows instructions which are provided in terms of the type of item to make, the overall size and shape, the materials to use, and the features to provide. Many of the items made by workers at this level often lack exact measurements or complete patterns, and require the WG–7 Wood Worker to plan construction details based on similar past work, or make minor changes to existing plans or patterns.

The products made by the WG–7 Wood Worker are checked in progress and upon completion to insure that requirements are met.

Skill and Knowledge: The WG–7 Wood Worker applies skill in reading and following detailed guidelines (drawings, specifications, illustrations, etc.) in constructing items. He is also skilled in making minor changes to standard plans and guides to make an end product which is typically different in one or a few ways from a standard product. For example, he is skilled in measuring for and computing changes to the dimensions of parts and sections, to make an item similar in most respects, except size, to a standard item; or he may use parts of two existing plans to make a box or crate which combines two different rectangular shapes or sizes, or which combines a rectangular shape with a triangular shape.

The WG–7 Wood Worker is skilled in planning, measuring for and constructing wooden parts or sections such as gates, bins, dividers, and bracing to fit against items and structures. For example, in making parts or sections for securing boxes of munitions within a freight car, van, or other cargo area, he measures or estimates sizes for wooden parts, rather than following specifications, patterns, or templates as described at the WG–5 level.

The WG–7 Wood Worker uses tracing, scribing, and measuring skills along with shop arithmetic to figure or determine the sizes of some of the parts he makes and to plan how to best utilize boards and sheets of material. He makes items with parts and sections which are closer, tighter, and more difficult to make than those typical of the WG–5 level. For example, some parts must be measured and cut accurately for close, weather resistant fits, and some items must be built to prevent movement or shifting.

The WG–7 Wood Worker uses skill in operating a variety of hand and portable power tools and devices to measure, cut, fit, join, and install

wooden parts for items like those previously described. He selects the appropriate tool for individual tasks. He may also apply skill in setting up and using a variety of power tools and machines to do more difficult work than the cutting, trimming, drilling, nailing, and fastening operations performed at WG–5. For example, some WG–7 workers select and use a variety of stationary power saws (radial saws, circular saws, hand saws, etc.), drill presses, jointers, and similar machines to make construction features such as standard joints and grooves of some of the following basic types: Rabbeted edge lap joints; tongue and groove, and doweled edge joints; end lap joints; dado and dado rabbet grooves and joints; and locked corners. In comparison, WG–5 level workers typically do simpler machining using preset wood working machines.

The WG–7 Wood Worker determines and uses proper pattern, spacing, and techniques for nailing, fastening, bracing, splicing, cleating, and supporting, when these vary according to product weight, size, and use. He selects or makes the preferred or required types and sizes of cleats, gussets, skids, fasteners, foundations, hardware, and similar features for a wide variety of types and sizes of items.

The WG–7 Wood Worker selects the proper type and grade from a few grades of soft pine, fir, plywood, hardboard and masonite and a few hardwoods, such as oak, hemlock, hickory, and elm. He applies a knowledge of the machining characteristics, relative strength, splitting tendencies, and nail-holding characteristics of these kinds of woods and wood substitutes. He uses this knowledge, along with a knowledge of a wide variety of types, sizes, and uses of fastening devices, and his skill in the use of tools and machines, to select and cut specified materials and to securely connect, and construct items.

Responsibility: The WG–7 Wood Worker receives instructions which are complete in terms of the type of item to make, the overall size and shape, the material to use, and the object or place which the item is to be built around, against, or within. The instructions often lack exact measurements, plans, or patterns, or leave the construction details and sequences to the worker. The WG–7 Wood Worker uses judgment in selecting, combining, and making minor changes to standard, regularly used work plans, patterns, and procedures; in selecting appropriate tools; and in insuring that the end product meets requirements, specifications, and user needs. In comparison, the WG–5 level worker typically follows plans, procedures, and instructions which are more complete.

The WG–7 Wood Worker follows numerous safety practices to avoid accidents and prevent injury. His work is checked in progress and upon completion to insure that requirements are met.

Physical Effort: The WG–7 Wood Worker performs tiring work for long periods. His work involves frequent standing, bending, stooping, and arm movement. He sometimes does his work in cramped areas or on temporary platforms. He frequently lifts and carries items weighing up to about 50 pounds. He may occasionally lift heavier items with assistance. Because the WG–7 worker more frequently builds or works with large and heavy items, his work is generally more strenuous than WG–5 level work.

Working Conditions: The WG–7 Wood Worker works in shop areas or partly enclosed areas which are sometimes uncomfortably warm, cool, damp, or drafty. He also works outside, in all types of weather. He is frequently exposed to loud noise such as that from power saws, hammers, and nailing machines.

He is often exposed to nose and lung irritations from sawdust, to possible cuts from sharp blades or tools, to possible skin abrasions and splinters from handling unfinished wood, and to possible injuries from flying wooden particles, nails, staples, and fasteners.

To avoid injuries and irritations, the Wood Worker may wear protective eyeglasses, ear devices, or gloves.

General: In comparison with the WG–7 Wood Worker who builds and constructs a wide variety of wooden supply, storage, and shipping items according to existing plans and procedures or by making minor changes to existing plans, the WG–8 Wood Worker performs more difficult assignments which involve more complex construction plans and work procedures and typically require complete custom-building of these kinds of wooden items. Work at this level requires individual selection of tools, devices, and machines to be used, and the planning of construction methods and techniques based on a variety of considerations, including type of shipment, storage, handling, or other use; desired size, weight, durability, or similar requirements or limitations; and characteristics of the item to be contained, braced, supported, stored, or shipped. Work at the WG–8 level may also require improvising and constructing special jigs, forms, templates, or patterns. The products made by the WG–8 Wood Worker are checked to insure that construction requirements and user's needs are met.

Skill and Knowledge: The WG–8 Wood Worker uses skill in planning the construction of items such as wooden boxes and crates, storage shelters, and complex bracing structures with nonstandard features (e.g., exteriors of irregular shape and unusual size; supports and bracing which must be custom cut and built) to fit around, against, and within objects and places of irregular size and shape. In comparison with lower-level work, work at the WG–8 level requires greater skill in improvising and modifying construction plans, patterns, and sequences to incorporate several irregular shapes and nonstandard features into the same end item.

The WG–8 Wood Worker selects and uses a variety of hand and power tools and machines such as those described at the WG–7 level, but uses them to make the more varied and complex construction features typical of this level. WG–8 work also often includes skill in using a variety of woodworking machines (for example, all kinds of saws, drill presses, drills, mortisers, tenoners, and jointers) to machine some of the following: open, blind, and stub mortise and tenon joints; box joints; half-lap; cross-lap joints; and mitered end lap joints (in addition to the cuts, grooves, and joints described at lower levels). Items made also include out-of-square, triangular, circular, contoured, beveled and odd shaped parts and sections.

The WG–8 Wood Worker applies skill in determining the weight support points of large, heavy, unbalanced, irregularly shaped items in order to make and place supports to prevent such items from shifting,

moving, breaking loose, and becoming damaged or causing damage during storm-caused tossing and very rough handling.

Although the WG-8 Wood Worker works with about the same variety of soft and hard woods and wood substitutes as at the WG-7 level, he applies a more extensive knowledge of the characteristics and machining qualities of the materials and puts them to a wider variety of uses and more numerous machining processes. He determines the proper tools, bits, blades, etc., for the materials to be used and the work to be done. Also, based on his more extensive knowledge of the strength, durability, and machining characteristics of wood and wood substitute materials, he recommends the use or substitution of materials to meet varied customer needs or planned uses.

The products made by the WG-8 Wood Worker are checked to insure that construction requirements and user needs are met.

Responsibility: The WG-8 Wood Worker receives a general indication of the type of product to be made; the special needs, requirements and features involved; most of the materials to use; the weak, fragile, and hazardous aspects of items, parts, or sections that are to be braced, supported, or protected; and the type of transportation, storage, or planned use.

The WG-8 Wood Worker uses greater judgment than is required of workers at lower levels in determining sizes, shapes, and measurements of individual parts, sections, and complete items. He must select the appropriate tools or machines and work methods for constructing items having numerous complex features or special requirements for sturdiness, serviceability, size, fit, or safety. He recommends materials and devices or substitutes needed to meet unusual features or requirements.

Physical Effort: Physical effort at this grade is the same as that described for the WG-7 Wood Worker.

Working Conditions: Working conditions at this grade are the same as those described for the WG-7 Wood Worker.

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